

WHAT IS CLAIMED IS:

- 1/ An inertial sensor comprising at least one vibrating element having one end connected to a support element and an opposite end connected to a test mass which is hinged to the support element by at least two link elements and which includes a cavity in which the vibrating element and a portion of the support element adjacent to the vibrating element are received, wherein the link elements are housed in the cavity surrounding a portion of the support element to which the link elements are connected.
- 2/ A sensor according to claim 1, wherein the support element includes a cavity in which there extends a portion of the vibrating element.
- 3/ A sensor according to claim 1, wherein the link elements and the vibrating element are arranged in such a manner that the sensor has a sensing axis substantially perpendicular to an excitation axis for a first mode of oscillation of the sensor as a whole.
- 4/ A sensor according to claim 3, wherein the link elements are substantially perpendicular to the vibrating element.
- 5/ A sensor according to claim 1, having two parallel pairs of link elements disposed facing each other on opposite sides of the portion of the support element to which they are connected.
- 6/ A sensor according to claim 1, comprising a plate in which there are defined the vibrating element, the support element, the test mass, and the link elements.
- 7/ A sensor according to claim 1, wherein the support element includes a yoke-forming portion connected by a

decoupling frame to the portion of the support element to which the vibrating element is connected.